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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,661	05/17/2006	Michael Prosser	26786-520-NATL	9367
35437 7590 10/26/2007 MINTZ LEVIN COHN FERRIS GLOVSKY & POPEO 666 THIRD AVENUE NEW YORK, NY 10017			EXAMINER YANG, ANDREW	
			ART UNIT 3733	PAPER NUMBER
			MAIL DATE 10/26/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/579,661

**Applicant(s)**

PROSSER, MICHAEL

**Examiner**

Andrew Yang

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

This action is in response to Applicant's amendment filed on 8/10/2007.

#### ***Oath/Declaration***

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

Correct statement should read "I acknowledge the duty to disclose information which is material to patentability of this application in accordance with Title 37, Code of Federal Regulations Section 1.56."

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

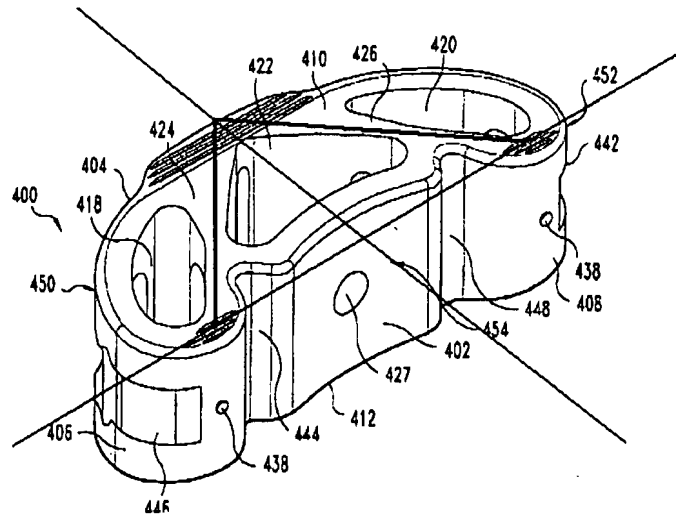
Claims 1-3, 7, 16, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Boriani et al (U.S. Patent Number 6159211).

Boriani et al. discloses a spinal cage 10 with a rigid body 12 made of an inert material (Column 3, Line 34) and formed in an annular configuration (Figure 1). The body 12 has opposed upper 14 and lower 16 surfaces and an annular side wall 18 extending between the surfaces. A plurality of ridges 24, 25 project outward from the upper 14 and lower 16 surfaces and the annular sidewall 18 has a plurality of spaced apertures 22. Ridges 24 run in an anterior/posterior direction and ridges 25 run in a medial/lateral direction making them angularly offset. A transverse 28 bisects the central opening 20, thus forming a pair of axially aligned openings, which can be packed with bone graft material (Column 4, Lines 11-13).

Claims 3-6, 8-10, 12-19, 21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by White et al. (U.S. Publication No. 2004/0073314).

White et al. discloses a spinal cage assembly 400 made of a biologically inert material (Paragraph 53) in the shape of a rigid annular cage (Figure 15). With further reference to Figure 15, the cage has upper and lower surfaces extending about the perimeter of the cage and an annular sidewall extending therebetween. Traverse inner wall 424, 426 extends across the cage. Grooves 414, 415, 416 are formed on the perimeter surfaces that form raised projecting ridges and a plurality of openings 428, 430, 431 are formed on the annular sidewall. Further more, the raised ridges are angularly offset. The ridges on the anterior side (defined by wall 404) are disposed on a median axis extending through the implant. The ridges on the posterior side (along wall

402) are offset from the median axis at an angle from the ridges at the anterior side of the implant (See Figure Below).



A pair of axially aligned openings 418, 420 extend through the cage 400 that can be packed with bone growth material (Paragraph 92). With regard to a plurality of indexing members on the perimeter surfaces of the cage, it is considered that the surfaces of transverse wall 424 and sidewall 406 define a surface which aperture 418 extends through creating an indexing member on a surface substantially on the perimeter of the cage. The same is considered for transverse wall 426, sidewall 408, and aperture 420. The indexing members cooperate with indexing members in the form of pins 316-319 on the spacing element 310. Spacing element 310 axially aligning and securing cage assembly 400 to an identical second cage assembly 401 (Figure 13). The spacing element has an annular configuration (Figure 13) and a transverse portion with resilient attachment members 320, 321 on opposite ends of the spacer that resist axial movement when secured to the cage assemblies (Paragraph 89). Furthermore, it is

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considered that the cage assemblies and spacing element form a substantially half-moon shape or kidney shape (Figures 13-21).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Publication No. 2004/0073314).

White et al. discloses the claimed invention except for a pair of resilient members on opposite sides of the spacer element. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of White et al with a pair of resilient members on opposite sides of the spacer element, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boriani et al (U.S. Patent Number 6159211) in view of Brantigan (U.S. Patent No. 5192327).

Boriani et al. discloses the invention as claimed except for the cage assembly having an oval configuration. Brantigan teaches a spinal cage assembly with an oval shape to conform with the general outline perimeter of the vertebrae (Column 2, Lines

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1-4). It would have been obvious to one skilled in the art at the time the invention was made to construct the device of Boriani et al. with an oval shape in view of Brantigan so that the device would have a shape that conforms to the general outline perimeter of the vertebrae.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Publication No. 2004/0073314) in view of Brantigan (U.S. Patent No. 5192327).

White et al. disclose the invention as claimed except for the cage assembly, having an oval configuration. Brantigan teaches a spinal cage assembly with an oval shape to conform with the general outline perimeter of the vertebrae (Column 2, Lines 1-4). It would have been obvious to one skilled in the art at the time the invention was made to construct the device of White et al. with an oval shape in view of Brantigan so that the device would have a shape that conforms to the general outline perimeter of the vertebrae.

### ***Response to Arguments***

Applicant contends that Boriani et al. fails to disclose the device to be annular with an annular wall extending between top and bottom surfaces and also fails to disclose the ridges being angularly offset with respect to each other. The device of Boriani et al. however does have an annular configuration (Figure 6) since annular means shaped or formed like a ring (dictionary.com) and as seen in Figure 6, the outer circumference of the implant is continuous, thereby forming a ring enclosing a certain area. Also the ridges 24 and the ridges 25 are angularly offset from each other, and

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with further reference to Figure 6, it can be seen that they are offset at 90 degrees to each other.

Applicant contends that White et al. does not disclose raised ridges. It is considered however, that forming grooves on a surface would then create ridges, which surround the grooves. Furthermore, the ridges that are created would be raised and project outwardly from at least the portion of the implant where the grooves are made.

In response to the Applicant's argument that the ridges of White et al. are not angularly offset, the amendment has required the new grounds of rejection, however, still drawn from the same art previously relied on and has been discussed above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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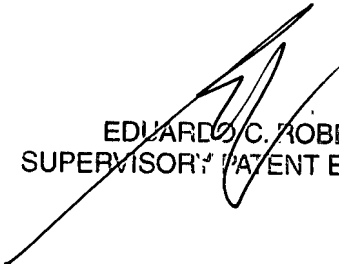
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Yang whose telephone number is 571-272-3472. The examiner can normally be reached on 8:00am-5:30pm: Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A.Y.  
10/17/2007



EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER